



NUI MAYNOOTH
Ollscoil na hÉireann Má Nuad

NATIONAL UNIVERSITY OF IRELAND, MAYNOOTH MAYNOOTH, CO. KILDARE

HAMILTON INSTITUTE

EARLY STAGE RESEARCHER (Ph.D. Student) x2

(Temporary Three Year Contract Posts)

The University

Formally established as an autonomous university in 1997, but tracing its origins to the foundation of the Royal College of St. Patrick in 1795, the National University of Ireland, Maynooth (NUI Maynooth) draws on a heritage of over 200 years' commitment to education and scholarship. The last two decades have seen the University grow rapidly in scale, strength and stature. NUI Maynooth is today a university of international standing, renowned for the quality and value of its research and scholarship, for its dedication to excellent teaching, for providing an outstanding learning experience for its 8,500 students, and as a uniquely collegial environment in which to pursue scholarly work.

NUI Maynooth is embarking upon a new and exciting phase of its development under a new *University Strategic Plan 2012-17* with a vision to consolidate the international reputation of NUI Maynooth “*as a university known for outstanding teaching, excellent research, a global outlook, effective engagement with the society we serve, and our distinctive approach to the challenges facing modern higher education.*”

The *University Strategic Plan 2012-17* sets seven strategic goals for the university:

- to offer students an outstanding university education, the best available in Ireland, an education which challenges and supports all students to achieve their full potential, and prepares students for life, work and citizenship, and for complexity, diversity and change;
- to be recognised by 2017 as playing a leading international role and being the clear national leader in a number of thematic areas of research that address the major societal challenges of the 21st century;
- to achieve a step change in our international activities, doubling the number of international students on campus and doubling the number of domestic students spending time abroad, in order to create a truly intercultural and multilingual institution;



to strengthen our engagement with all stakeholders through sustained partnerships with enterprises, communities, civil society and public bodies, to build support for the mission of the university, to serve the needs of society, and to open new opportunities for research and learning;

- to maximise our unique and distinctive contribution to the national system of higher education through a set of purposeful and sustained strategic partnerships at regional and national level, and to extend our international reach through a network of global partnerships;
- to be an excellent place to work, known for a collegial ethos which empowers all staff to contribute fully to the development of the university;
- to enable the achievement of ambitious strategic objectives in challenging circumstances through careful planning, excellent services and infrastructure, and sound governance and management.

The University has distinctive institutional strengths in six thematic areas: Human health mechanisms & processes; Mathematical, information & communication sciences; Social and economic transformations; People and place; Sources, Resources and Discourses; Cultures, experiences and creativity.

The University has 26 academic departments which are organised into three Faculties: Arts, Celtic Studies and Philosophy; Science and Engineering, and Social Sciences. The University is also home to a number of multi- and trans-disciplinary research institutes, including the Hamilton Institute, the National Centre for Geocomputation, the National Institute for Regional and Spatial Analysis, and Institute of Immunology.

In a pioneering recent development, NUI Maynooth, Dublin City University and the Royal College of Surgeons in Ireland have established the 3U Partnership, a new strategic association that brings together the distinctive and complementary strengths of the three institutions.

Hamilton Institute

The Hamilton Institute is an Applied Mathematics group and aims to bridge the gap between theory and applications in ICT and Biology. Founded in 2001 with seed funding of £5M awarded by Science Foundation Ireland (SFI) it has grown to around 50 full-time researchers, and has won competitive research funding exceeding €35M.

The Institute's commitment to real applications work is reflected in its strong industry links, including partnerships with IBM, Bell Labs, AstraZeneca and Unilever. Its commitment to research excellence is reflected in its research output (>250 journal papers and >300 peer-reviewed conference papers in the last five years), active links with leading international research groups (at MIT, Cambridge, WEHI, NKI, amongst others) and consistently high ratings in external quality reviews carried out over the last 10 years as part of research project assessments and university governance. The Institute has an active international visitor programme and organises a number of high-profile international workshops each year. The Institute is structured similarly to an academic department within NUI Maynooth, with its



own faculty and students, although with no undergraduate cohort.

Recognition of its strategic role both within NUI Maynooth and nationally is reflected in its success in the last two rounds of PRTLTI national infrastructure funding where it was awarded recurrent funding to establish structured graduate programme and €4.5M capital funding for new research space.

Major focuses of research activity at the institute currently include communication networks (especially resource allocation in wireless networks), smart transport (including electric vehicles, algorithms for congestion and pollution management), mathematical biology (especially immunology and cellular biology) and the mathematics of networks (distributed/decentralised optimisation, distributed feedback control, stochastic processes and dynamics on graphs).

The Role

The National University of Ireland, Maynooth is committed to a strategy in which the primary University imperatives of excellent research and scholarship and education are interlinked and equally valued.

We are looking for two ambitious EU Marie Curie Early Stage Researchers to work as contract employees and to contribute to a vibrant research group at the university. Candidates will enrol in the university's Ph.D. programme under the supervision of Dr Ken Duffy following which, as Ph.D. students, successful applicants will be subject to the University's regulations applicable to students for the duration of their studies. They will be required to avail of international training under the EU Initial Training Network "Quantitative T cell Immunology (QUANTI)"; <http://www1.maths.leeds.ac.uk/applied/QUANTI/>

Principle Responsibilities

The successful candidate will:

- Have a first class or higher second class degree (or equivalent) in a numerate discipline such as mathematics / statistics / computer science / engineering;
- Have not yet been awarded the doctorate degree and be in the first 4 years (full-time equivalent) of their research career;
- Have a keen interest in working on an interdisciplinary project driven by immunology;
- Have demonstrated appropriate technical expertise.

The duties of the post will include:

- To enrol in NUI Maynooth's network mathematics structured graduate programme under the supervision of Dr Ken Duffy;
- Undertake research as part of the QUANTI network;
- Participate in training activities of the network;



- Perform research in collaboration with members of the network, including participating in research visits to other member institutions.

Terms and Conditions:

Only short listed candidates will be invited to attend for interview.

To ensure the international character of an ITN project, applicants must not have resided or carried out their main activity in Ireland for more than 12 months in the last three years immediately prior to the date of selection. More details regarding this network are available at http://cordis.europa.eu/search/index.cfm?fuseaction=proj.document&PJ_RCN=13228565

Salary: €9,983 per annum

Start Date:

It is anticipated that the start date for this position will be 1st Sept 2013.

Informal Enquiries

Enquiries regarding the post should be addressed by email to Dr Ken Duffy at ken.duffy@nuim.ie

Application Procedure

Applications should be made by sending the following information to ken.duffy@nuim.ie:

Please ensure that you include the words **‘QUANTI ESR’** in the subject line:

A detailed CV, including a list of educational experience, motivation letter, research interests and expertise; the names, email addresses, correspondence addresses and contact numbers of two referees whom the University may contact.

The completed application documents should be forwarded by email to arrive no later than **Midnight, Wednesday 31st July 2013.**

No late applications will be accepted.

NUI Maynooth is an equal opportunities employer.

The position is subject to the Statutes of the University

